data needed, and completing a this burden to Department of D	and reviewing this collection of in refense, Washington Headquart	nformation. Send comments regarders Services, Directorate for Info	arding this burden estimate or an mation Operations and Reports	y other aspect of this co (0704-0188), 1215 Jeffe	ching existing data sources, gathering and maintaining the ollection of information, including suggestions for reducing erson Davis Highway, Suite 1204, Arlington, VA 22202-		
	EASE DO NOT RETURN YOU	r other provision of law, no persor R FORM TO THE ABOVE ADDR 2. REPORT TYPE			n a collection of information if it does not display a currently  OATES COVERED (From - To)		
11/20/2013		Final Report			11/2010-11/20/2013		
4. TITLE AND SUBTIT					CONTRACT NUMBER		
DOTC Initiative 02	25 November 2013	Final Technical Rep	port to ATI		15QKN-09-9-1001 D. GRANT NUMBER		
				N/A			
				5c. N/A	PROGRAM ELEMENT NUMBER		
6. AUTHOR(S)					PROJECT NUMBER		
•	MERICAN SYSTEM	IS- PROGRAM MA	NAGER		TC 10-01-INIT225 TASK NUMBER		
973-580-1460 kristen.wesner@ar	nericansystems co	m		N/A			
Kiloton.wesher@ai	nenoanoyotemo.oo				WORK UNIT NUMBER		
7 DEDECORMING OR	ANIZATION NAME(C)	AND ADDRESS(ES)		N/A	ERFORMING ORGANIZATION REPORT		
7. PERFORMING ORG AMERICAN SYST		AND ADDRESS(ES)			IUMBER		
14151 Park Meado				Init	0225 Report 11202013		
Suite 500							
0 SDONSODING / MO	AUTODING ACENCY A	IAME(S) AND ADDRESS	2/50)	10	SPONSOD/MONITOD/S ACDONYM/S)		
		IAME(S) AND ADDRES	5(ES)	10.	SPONSOR/MONITOR'S ACRONYM(S)		
Robert Koch- Picat 973-724-3447	illily Alsellai, NJ, F	KDEC					
robert.p.koch4.civ@mail.mil					SPONSOR/MONITOR'S REPORT		
					NUMBER(S)		
12. DISTRIBUTION / A	VAILABILITY STATEN	IENT					
Approved for public	c release; distribution	on is unlimited					
13. SUPPLEMENTAR	YNOTES						
N/A							
14. ABSTRACT							
					ata support to the Force protection		
					between test site and engineer,		
					data, American System Corporation oncepts and to get them to to the		
		nd ultimately and mo					
15. SUBJECT TERMS							
Warheads; Force F	Protection; munition	s; testing schedules	; test data; cost da	ta; testing; te	chnical reporting		
16. SECURITY CLASS	SIFICATION OF:		17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON		
a. REPORT	b. ABSTRACT	c. THIS PAGE			19b. TELEPHONE NUMBER (include area code)		

**REPORT DOCUMENTATION PAGE** 

Form Approved OMB No. 0704-0188

# **Final Technical Status Report**

for

**Test and Evaluation for Force Protection Initiatives** 

#### **Initiative No. INIT225**

**Reporting Period:** Aug 11th 2010 – Nov 20<sup>th</sup> 2013

#### **American Systems Corporation**

**Initiative Team Technical POC** 

Kristen Wesner AMERICAN SYSTEMS 14151 Parkeast Circle- Suite 500 Chantilly,VA 20151

E-mail: kristen.wesner@americansystems.com

Submitted: 11/20/2013

#### 1. Comments on Technical/Cost/Schedule Performance

**Technical:** American Systems Corporation provides engineering, analysis, and cost data support to the Force protection & EFP Warheads group. Assisting the engineer in setting up testing schedules, liaising between test site and engineer, analyzing cost data; contributing to the branches ability to rapidly test/evaluate material and armor concepts and to get them into to the user for test and evaluation.

**Cost:** American Systems Corp. expended a total of \$3,235,131 to support Force Protection and engineering efforts for Test and Evaluation projects and the final report.

**Schedule:** Work is complete.

#### 2. Initiative Quad Chart

Conversion of Munitions Components into Higher Value Products						
Goals & Objectives	Initiative Information					
To provide ongoing engineering and cost analysis, engineering support, research and scheduling and technical writing support to Force Protection & Warhead Branch to enhance the branches ability to test and evaluate Force Protection initiatives.	Initiative Lead: American Systems Corporation Team Members: Force Protection and Explosively Formed Penetrator (FP&EFP) Branch, US Army RDECOM-ARDEC Period of Performance: 28 months Funding: \$3,235,131					
Milestones & Technical Achievements	Implementation & Payoff					
Provide Engineering Support to Force Protection & EFP Branch	Schedule: Nov 2013 Status: 100%  Provide qualified engineering support personnel.					
<u>Current Status:</u> Technical = <u>Green</u> Schedule = <u>Green</u> Cost = <u>Green</u>	<mark>cen</mark>					

#### 3. Supplemental Information

In order to improve the usefulness of the quad charts and provide DOTC with sufficient initiative information, the Final Report must be supplemented with data described below:

**3.1 Technical Achievements** American Systems Corporation has provided professional engineering, analysis, and cost data support to the Force protection & EFP Warheads group. By assisting the engineer in setting up testing schedules, liaising between test site and engineer, assisting in evaluating test data, analyzing cost data, and writing technical reports from raw data, American System Corporation has greatly contributed to the branches ability to rapidly test/evaluate material and armor concepts and to get them to to the user for further test and evaluation and ultimately and more rapidly to the end user; the soldier.

During the period from August 2010 through November 2013 American Systems was able to coordinate specific test requirements for different reactive armor and other materials at Picatinny Arsenal Warheads Test facility. Retrieve and analyze x-ray data and provide written post-test results on multiple Warhead tests. Coordinated workload for explosive loading scheduled for testing. Create and update test schedule for Warheads Test facility; monitor costs. Modified target materials to meet specific armor test set-ups. Prepared or edited presentation charts and posters. Prepared and edited GANT Charts and Abstracts and supported engineers in preparation of Cooperative Research and Development Agreements (CRDA) and other procurement initiatives. Monitor funding usage and dispersal through contract and in-house obligations. Work closely with government programmers to establish, transfer, or redistribute funding. Reconcile contracts. Analyze data between two accounting systems; advise department immediately of variances or discrepancies found. Research and liaise between FP&EFP Branch and Garrison in establishing recertification classification process and Intrusion Technology System (IDS) in regard to stand alone computer system with members of ARDEC IT community. Assumed time-keeper role for Force Protection and Warheads Branch. Edited, formatted, and formulated various technical reports for senior engineers to include Technical Achievement criteria, various summaries of on-going or proposed testing initiatives, presentation charts and Prepared, edited, or reformatted multiple Abstracts, Technical papers, Factor IV submissions, outlines, and Power-point slides. Participate, in an advisory capacity, at meetings or in telecoms on funding and acquisition issues, test schedules, and paper submissions, with Explosive Ordnance Disposal Division and Non-Standard Ammunition Branch in obtaining targets for testing. Update and perform maintenance on router, firewall, IPS, and crypto systems for FIO. Update several databases including APMS and C&A data bases. Perform ongoing HBSS configuration and maintenance. Actively participate in Defense Agency Initiative (DAI) General Funds Enterprise Business System (GFEBS) (new DoD wide accounting system) conversion from SAP. Proactively monitor funding on various programs anticipating impact of Sequestration on government funding. Edit and format various technical reports for senior engineers to include classified presentations and posters. Prepare, edit, or reformat more than ten Abstracts and Technical papers for submission to higher headquarters. Prepare and edit Factor IV nomination justification at the GS-14 and GS-15 level. Ran blast simulations in CTH and compared results to experimental data. Meshed complicated geometries, produced detailed drawings for hardware, and ran various LS-DYN simulation models. Documented Furlough notifications, usage reports, and monitor compliance with directed furlough protocol.

### **Milestone Status**

Milestone No.	Deliverable Description	<b>Due Date</b>	% Completed
1	Initiative Management Plan	8/1/2010	100%
2	Quarterly business and technical status report	9/20/2010	Waived
3	Quarterly business and technical status report	12/20/2010	100%
4	Quarterly business and technical status report	3/20/2011	100%
5	Quarterly business and technical status report	6/20/2011	100%
6	Annual Technical Report	8/1/2011	100%
7	Quarterly business and technical status report	9/20/2011	100%
8	Quarterly business and technical status report	12/20/2011	100%
9	Quarterly business and technical status report	3/20/2012	100%
10	Quarterly business and technical status report	6/20/2012	100%
11	Annual Technical Report	8/1/2012	
12	Quarterly business and technical status report	9/20/2012	100%
13	Quarterly business and technical status report	12/20/2012	100%
14	Quarterly business and technical status report	3/20/2013	100%
15	Quarterly business and technical status report	6/20/2013	100%
16	Quarterly business and technical status report	9/20/2013	100%
17	Final Technical Report	11/20/2013	100%
18	Final Business Status Report	11/20/2013	100%

3.2	Technical	Readiness	Level	Status a	nd T	Гесhno	ology '	Transf	er Ir	nformati	on:
-----	-----------	-----------	-------	----------	------	--------	---------	--------	-------	----------	-----

Technical Readiness Level 4: Basic technology components are being studied, tested, and integrated into developmental warheads to establish that the components will work together.

<b>Technology Transfer</b>	Technol	logv	Tran	sfer
----------------------------	---------	------	------	------

- None
- 3.3 Problems Encountered and Action Taken
  - None
- 3.4 Non Traditional Defense Contractor Participation/Technology Transfer
  - None
- 3.5 Plans for Next Quarter: Deliver the following to the Government:

N/A

## **Final Business Status Report**

for

Test and Evaluation for Force Protection Initiatives
Initiative No. INIT225

**Reporting Period:** Aug 11th 2010 – Nov 20<sup>th</sup> 2013

### **American Systems Corporation**

**Initiative Team Technical POC** 

Kristen Wesner AMERICAN SYSTEMS 14151 Parkeast Circle- Suite 500 Chantilly,VA 20151

E-mail: kristen.wesner@americansystems.com

#### **Ordnance Technology Initiative Summary Information**

Total Initiative Cost:	\$3,235,131
Total Estimated Cost Share:	\$3,235,131
Total Funds Obligated:	\$3,235,131
Total Funds Invoiced:	\$3,235,131
Date of Last Invoice:	Nov 14, 2013
Total Cost of Share Reported:	\$3,235,131

### **Ordnance Technology Initiative Resource/Cost Information:**

The following resources/costs are applicable to this initiative for the period August 2010 through November  $20^{\text{th}}$  2013

Organization	Total Initiative Planned Cost	Initiative Planned Cost to Date	Initiative Estimated Cost to Date	Comments (required for any significant deviations from plan)
American Systems Corp.	\$3,235,131	\$3,235,131	\$3,235,131	None
Total	\$3,235,131	\$3,235,131	\$3,235,131	

**Non-tradition Contractor: N** 

**Problems Encountered and Action Taken** 

None

**Interest Earned**